DISTRICT OF COLUMBIA

Contact Information

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DOH Water Quality Division homepage:
http://dchealth.dc.gov/services/administration_offices/environmental/services2/water_division/index.shtm

Program Description

The mission of DC's Department of Health (DC DOH), Environmental Health Administration, Water Quality Division is to restore and protect the surface and ground waters of the District of Columbia. The program, established under the authorities of the DC Water Pollution Control Act and the federal Clean Water Act (CWA), has three principal components:

Water Quality Control
The Water Quality Control component fulfills the function of policy planning as well as regulatory control. In addition, it conducts special studies on pollutant fate and transport to identify probable sources and impacts, river/stream sediment and water column quality not covered by ambient monitoring, wet weather nonpoint source runoff quantity and quality, and discharge-related facility inspections. It also tracks permit violations.

Water Quality Monitoring
Water Quality Monitoring functions encompass waterbody assessment; collection of ambient water quality data; periodic fish tissue analysis for parameters of concern such as PCB, chlordane, and DDT; periodic submerged aquatic vegetation survey; and bioassessment of wetlands and river fringes.

Environmental Laboratory
The Environmental Laboratory is charged with the analysis of samples for a variety of chemical parameters.

Documentation and Further Information

District of Columbia 2000 305(b) Report, Executive Summary:
http://dchealth.dc.gov/services/administration_offices/environmental/services2/water_division/pdf/00-305bexsumm.shtm

District of Columbia Water Quality Standards:
http://dchealth.dc.gov/services/administration_offices/environmental/services2/water_division/pdf/WaterQualityStandards.shtm

District of Columbia Water Quality Monitoring Regulations (Chapter 19 of DC Municipal Regulations):
http://dchealth.dc.gov/services/administration_offices/environmental/services2/water_division/pdf/WaterQualityMonitoring.shtm

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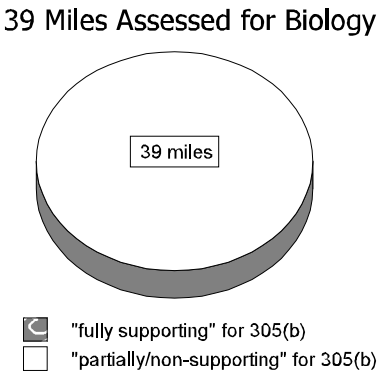
Programmatic Elements

Uses of bioassessment within overall water quality program	✓	problem identification (screening)
		nonpoint source assessments
		monitoring the effectiveness of BMPs
	✓	ALU determinations/ambient monitoring
	✓	promulgated into state water quality standards as biocriteria
		support of antidegradation
		evaluation of discharge permit conditions
	✓	TMDL assessment and monitoring
		other:
Applicable monitoring designs	✓	targeted (i.e., sites selected for specific purpose) *(special projects only)*
	✓	fixed station (i.e., water quality monitoring stations) *(comprehensive use throughout jurisdiction)*
		probabilistic by stream order/catchment area
		probabilistic by ecoregion, or statewide
		rotating basin
		other:

Stream Miles

Total miles *(determined using state based GIS coverage)*	**39**
Total perennial miles	–
Total miles assessed for biology	**39**
fully supporting for 305(b)	0
partially/non-supporting for 305(b)	39
listed for 303(d)	unknown
number of sites sampled	unknown
number of miles assessed per site	unknown



Aquatic Life Use (ALU) Designations and Decision-Making

ALU designation basis	Single Aquatic Life Use	
ALU designations in state water quality standards	One designation: Protection and propagation of fish, shellfish and wildlife	
Narrative Biocriteria in WQS	Formal/informal numeric procedures are used to support narrative biocriteria	
Numeric Biocriteria in WQS	none	
Uses of bioassessment data in integrated assessments with other environmental data (e.g., toxicity testing and chemical specific criteria)		assessment of aquatic resources
		cause and effect determinations
		permitted discharges
		monitoring (e.g., improvements after mitigation)
		watershed based management
Uses of bioassessment/ biocriteria in making management decisions regarding restoration of aquatic resources to a designated ALU	unknown	

Reference Site/Condition Development

Number of reference sites	**2 total**	
Reference site determinations		site-specific
		paired watershed
		regional (aggregate of sites)
	✓	professional judgment
		other:
Reference site criteria	DC DOH does not have reference site criteria. All streams in DC are contaminated. DC DOH compares streams to reference streams in Prince Georges and Montgomery Counties in Maryland.	
Characterization of reference sites within a regional context *Information not provided*		historical conditions
		least disturbed sites
		gradient response
		professional judgment
		other:
Stream stratification within regional reference conditions		ecoregions (or some aggregate)
		elevation
		stream type
		multivariate grouping
	✓	jurisdictional (i.e., statewide)
		other:
Additional information		reference sites linked to ALU
		reference sites/condition referenced in water quality standards
	✓	some reference sites represent acceptable human-induced conditions

Field and Lab Methods

Assemblages assessed	✓	benthos *(<100 samples/year; single observation, limited sampling)*
	✓	fish *(<100 samples/year; single observation, limited sampling)*
		periphyton
	✓	other: phytoplankton and zooplankton *(<100 samples/year; single observation, limited sampling)*
Benthos		
sampling gear		D-frame, kick net (1 meter); mesh size information not provided
habitat selection		riffle/run (cobble)
subsample size		100 count
taxonomy		family
Fish		
sampling gear		backpack electrofisher
habitat selection		pool/glide, riffle/run (cobble)
sample processing		length measurement, biomass – individual
subsample		none
taxonomy		species
Habitat assessments		hydrogeomorphology; performed with bioassessments
Quality assurance program elements		standard operating procedures, quality assurance plan, periodic meetings and training for biologists

Data Analysis and Interpretation

Data analysis tools and methods		summary tables, illustrative graphs
		parametric ANOVAs
		multivariate analysis
	✓	biological metrics
		disturbance gradients
		other:
Multimetric thresholds		
transforming metrics into unitless scores		*Information not provided*
defining impairment in a multimetric index		*Information not provided*
Multivariate thresholds		
defining impairment in a multivariate index		*Information not provided*
Evaluation of performance characteristics		repeat sampling
		precision
Information not provided		sensitivity
		bias
		accuracy
Biological data		
Storage		paper files only
Retrieval and analysis		data retrieved from paper files